

LVII.—Notes on Blattidæ &c., with Descriptions of new Genera and Species in the Collection of the British Museum, South Kensington.—No. I. By W. F. KIRBY, F.L.S., F.E.S.

IN comparing my 'Catalogue of Blattidæ' with the Museum Collection I have found a considerable number of new species; and I herewith offer descriptions of a first instalment of species belonging to the subfamilies Panchlorinæ, Blaberinæ, Corydiinæ, Polyphaginæ, and Panesthiinæ.

## BLATTIDÆ.

### PANCHLORINÆ.

Genus RHYPAROBIA, Krauss.

*Rhyparobia thoracica*, sp. n.

Long. corp. 37 millim.

*Female*.—Black, the upper and hinder orbits narrowly bordered with red; the lower mouth-parts and the greater part of the centre of the abdomen above and below ferruginous. Tegmina testaceous subhyaline, with two reddish-brown shades: one lies below the scapular black basal streak and widens out, covering more than the outer half of the lower basal area, and extending beyond and bordering the anal nervure; the second brown area occupies about the middle of the left tegmen, extending to the inner margin, but not to the costa; on its upper part it becomes irregular and submacular, and there are several spots between it and the basal streak. Wings nearly hyaline, with pale nervures. Antennæ black; legs dark ferruginous, shading into blackish above. Abdomen rugose above towards the extremity; the terminal segment carinated as far as the incision in the middle of its hind border.

*Hab.* Ntunda, Shire River.

Allied to *R. Capelloi*, Bolivar, from the Quango.

### BLABERINÆ.

Genus BLABERUS, Serv.

*Blaberus Distanti*, sp. n.

Long. corp. cum tegm. 60 millim.; long. pron. 8 millim.; lat. pron. 20 millim.

*Female*.—Head black, except the lower mouth-parts and the neighbourhood of the base of the antennæ; pronotum

rich tawny in front, the centre filled up with a large black figure, with irregular front and side borders, and slightly narrower below, where it unites with a deep black terminal band, which extends slightly upwards on the sides nearly to the middle; one or two indistinct tawny spots in the black figure; tegmina light tawny, broadly varied with darker, with the usual black basal line extending to two fifths of the length; abdomen above apparently tawny, with a broad black submarginal band on each side; underside generally tawny, abdomen with a festooned moderately broad submarginal black band on each side, meeting at the extremity.

*Hab.* —? (*Distant*).

Allied to *B. Sulzerii*, Guér. Guérin's description does not agree with Sulzer's figure of *B. surinamensis*, which is bad, and probably represents another species. *B. postica*, Erichs. (= *thoracica*, Sauss.), belongs to the same group.

#### CORYDIINÆ.

Genus CORYDIA, Serv.

*Corydia tonkinensis*, sp. n.

Long. corp. cum tegm. 18 millim. ; lat. tegm. 11 millim.

*Female*.—Closely punctured, pubescent; pronotum transversely oval, broadest at about two thirds of its length; pronotum and tegmina dark metallic green or blue, sometimes with purplish reflections on the hinder half of the tegmina; tegmina crossed beyond the middle by a fulvous band, expanded on the costa, and projecting towards the base in the middle, and on the inner margin; abdomen beneath violet-black, with the three subterminal segments tawny; antennæ black, slender, hardly moniliform, with about seven of the middle segments pale yellow.

*Hab.* Tonkin (*Fruhstorfer*).

Described from two specimens. This and the two following species appear to be somewhat intermediate between *Corydia* and *Dyscologamia*.

*Corydia purpuralis*, sp. n.

*Male*.—Allied to the last species, but rather longer and narrower. Pronotum and tegmina deep metallic greenish black, the costa shading into rich purple; tegmina with a large oval fulvous blotch on the costa beyond the middle, and a rather darker transverse band on the inner margin opposite extending half across the wing, beyond this the

tegmina are brownish towards the tip. Wings fusco-hyaline. Abdomen beneath fulvous, with the three subapical transverse segments and the apical segments shining black; the first of the former slightly and irregularly bordered with fulvous. Antennæ broken; the remaining basal segments moderately stout, black, submoniliform.

*Hab.* Kuantun, S.W. Fokien (*De la Touche*).

Allied to the last species.

Described from one specimen.

*Corydia hilaris*, sp. n.

Long. corp. 13 millim.; lat. abd. 7 millim.; exp. tegm. 27-30 millim.

Pronotum and base of tegmina deep metallic blue, the costal area for two fifths of the length, and the rest for nearly half the length, deep ochre-yellow, becoming more or less paler towards the tip. Wings yellowish hyaline, darker towards the costa, and with darker nervures. Abdomen orange, except at the base and tip, both above and below. Antennæ rather slender, submoniliform, black, with a pale yellow band occupying about three or four joints before the tip.

*Hab.* Not recorded (*Distant*).

Described from three specimens, 1 ♂, 2 ♀.

Allied to the last two species.

POLYPHAGINÆ.

Genus DYSCOLOGAMIA, Sauss.

*Dyscologamia cesticulata*, Sauss.

*Dyscologamia cesticulata*, Sauss. Rev. Suisse Zool. i. p. 298 (1893).

♂. Long. corp. 21 millim.; exp. al. 54 millim.

*Male*.—Head reddish brown, paler below, eyes contiguous, ocelli conspicuously yellow, and antennal pits yellow; antennæ, scape, and second joint yellow, the former with a broad black ring; the greater part of the flagellum brown, shading into pale reddish towards the extremity; pronotum thickly punctured, chestnut-brown varied with reddish, and clothed with long coarse reddish hair, transversely oval, with the sides rounded off; the rest of the upper surface of the body and the under surface and legs reddish; tegmina chestnut, the left paler towards the extremity, the costa bordered towards the base by an ill-defined blackish line, anal furrow marked by a slender pale yellow line, and intersecting a

large irregular pale yellow blotch on the inner margin; just before the curve of the furrow is a small black dash beneath it; the right tegmen almost bisected by an oblique brown line running towards the tip, which it does not reach; within this the tegmen is chestnut like the other, but outside it is subhyaline, darkest towards the line, and the cross-nervures towards the margin narrowly bordered on each side with white; the narrow anal furrow on crossing the transverse line is lost in a large triangular hyaline spot on the inner margin. Wings brownish hyaline, darkest towards the tips, the costa clouded with brown and rust-colour beyond the middle; most of the transverse nervures narrowly bordered with whitish. Supra-anal plate rounded, slightly incised in the middle; cerci rather long, moniliform.

Saussure's description relates to the female only; and I have nothing to add to it. His specimen was from Singapore; the Museum possesses both sexes from Selangor, and also two specimens of allied species from East and West Africa, which I do not care to describe without a longer series.

#### Genus POLYPHAGA, Brullé.

##### *Polyphaga camelorum*, sp. n.

Long. corp. 36–40 millim.; lat. abd. 28 millim.

*Female*.—Very convex. Dark chestnut-brown or blackish, shining; head varying from reddish chestnut to blackish, the antennal pits, the lower part of the labrum, the base of the labium, and a narrow space at the extremity of the latter, where it is triangularly incised, yellow; antennæ reddish, the basal half brownish; thoracic segments narrowly bordered with red and edged with long hairs; prothorax narrowly bordered with yellow on each side above, but not to the extremity; prothorax yellow beneath, with the border, and a broad space behind, reddish; meso- and metathorax beneath black, with a yellow space on the inner side; thoracic and abdominal sutures narrowly yellow; thorax and abdomen above thickly rugose-punctate, except a broad band at the base of each segment of the abdomen, which is black and shining, abdomen beneath smooth, reddish; terminal plate of abdomen above very broad, flattened, deeply and triangularly incised in the middle, and then sloping slightly to the outer angles, which are obtusely rounded off; the edge is set with short strong denticulations.

Two specimens from Hari Rud, and one from Badghis, collected by the Afghan Delimitation Commission.

“These were seen usually on sandy soil, where camels had been resting for the night, moving about amongst the dung.”—*Dr. J. E. T. Aitchison.*

A very large and remarkable species, most nearly allied to *P. indica*, Walk.; but *P. indica* is a smaller and darker insect, less shining, and with the last abdominal plate more rounded. A fourth specimen of *Polyphaga*, obtained by Dr. Aitchison at Badghis, agrees with a series from Kashgar, which should probably be referred to *P. indica*, the type of which is somewhat damaged.

### PANESTHIINÆ.

#### Genus SALGANEA, Stål.

##### *Salganea dux.*

Long. corp. 43 millim.; lat. pron. 17 millim.; lat. abd. 22 millim.; exp. al. 117 millim.

*Female.*—Dark reddish chestnut above, shading into blackish at the extremities and on the lower part of the clypeus; under surface and legs of a lighter red; head dark reddish brown, shining; ocelli, labrum, and base of labium testaceous; labium otherwise light red; terminal plate of abdomen black above and below; pronotum with a broad upcurved ridge, from whence rises a semidetached frontal hood, deeply indented in the middle; pronotum thickly punctured, the central tubercles of the raised portion quite small, the outer ones rising into very large pyramidal but somewhat obtuse teeth; meso- and metanotum with deep carinæ, enclosing a triangle very broad at the base and obtusely pointed behind; the metanotum, and to a less extent the mesonotum, is obtusely and broadly angulated behind; the meso- and metanotum and the basal segments of the abdomen smooth and very sparingly punctured, the last three abdominal segments and the terminal plate increasingly thickly punctured both above and below; terminal plate, hinder half of the last segment of the abdomen, the extremity of the one preceding, and the cerci clothed with short testaceous hair; seventh segment with the sides distinctly dentated, and with a large terminal tooth; terminal plate rounded and entire, with only a strong tooth on each side just beyond the cerci. Front femora with only a terminal spine on the outer carina beneath. Tegmina and wings smoky brown, the extremities and the anal half of the wings smoky hyaline.

*Hab.* Obi (*Van Duivenborg*).

This fine species is evidently closely allied to, if not identical with, *S. ternatensis*, Brunn.; but as that species was described from another island, apparently from damaged specimens, and too briefly to admit of a proper comparison, I have decided to give a full description, and to treat it as provisionally distinct.

#### Genus MICRODINA, nov.

Centre of pronotum projecting over the head in a sort of hood, excavated in front, and tuberculate on the sides; the sides of the pronotum produced into large curving horns, with a strong blunt tooth at the base above; front femora unarmed, the penultimate segment of the abdomen slightly, and the last strongly dentated at the sides; terminal plate broad, rounded, and dentated, with a very large tooth beyond the cerci. Tegmina laterally rudimentary, as long as the metanotum.

Type *Panesthia forceps*, Saussure.

Hab. Pondicherry (*Sauss.*), Nilgiris.

Allied to *Salganea*, Sauss., to which Saussure subsequently referred his *Panesthia forceps*; but differing in the remarkable structure of the pronotum, which is not unlike that found in some Dynastidæ among the Coleoptera, and by the rudimentary tegmina.

Saussure describes his insect as a female, but of six specimens now before me, one only, a male, agrees with his figure; in the others, which are females, the horns are shorter, and the concavity in front of the pronotum is shallower and more rounded. I may note that the antennæ are black for three fourths of their length, and then orange, shading into brown at the tip.

#### Genus DICELLONOTUS, Butl.

To this genus I refer the types *D. lucanoides* and *D. morsus*, Butl., *Panesthia monstruosa*, Wood-Mason, and *P. Panteli*, Bol., and two new species.

#### *Dicellonotus levis.*

Long. corp. 50 millim.; lat. 22 millim.

*Female*.—Uniform black above; the labrum, the joints of the palpi, and the pulvilli ferruginous; the under surface of the antennæ, the greater part of the legs and of the under surface of the body, and the cerci more or less of a dark chestnut-red; terminal plate of abdomen black above and

below ; head smooth, very finely punctured, lower part of clypeus finely transversely striated ; front femora with four spines ; pronotum broadly and almost squarely concave in front, with the sides rising into short horns, narrowed and recurved at the summit ; front depression of the pronotum dull, finely granulated, slightly carinated in the middle, and with a slight ridge on each side ; the rest of the upper surface smooth and shining, sides of pronotum sparingly and finely punctured ; abdomen very slightly punctured, except increasingly on the last two segments and on the terminal plate, though even there much less coarsely and thickly than usual ; raised part of pronotum with two strong tubercles in front, nearly as wide apart as the horns, terminal segment with about six irregular teeth in the middle, most of which are short, broad, and obtuse.

*Hab.* Animalli Hills, S. India.

A narrower and much less strongly punctured species than the others of the genus.

*Dicellonotus insularis.*

Long. corp. 41-42 millim ; lat 22-24 millim.

Black, a line within each antenna, the labrum and labium (but not the mentum, which is black), and the pulvilli testaceous ; spines on legs, claws, and some shades on the under surface of the abdomen ferruginous ; front of pronotum curved up into a stout moderately long rounded horn on each side, separated by a rounded space ; frontal depression thickly punctured, with two parallel carinæ running to the raised part of the pronotum, which is strongly bituberculate in the middle in front, and with two shallow channels on each side in front ; it is nearly smooth, but is very slightly punctured, as are also the other divisions of the upper surface, till towards the hinder segments of the abdomen, where large rounded punctures become increasingly numerous to the extremity, especially on segments 6 and 7, and on the terminal plate, which is rather strongly, but broadly, dentated at the extremity. Tegmina lateral, extending as far as the base of the metanotum, narrowed and slightly upcurved at the extremity. Front femora with two spines.

*Hab.* Bara, W. Bouru.

Described from two specimens. The female is narrower, and the horns are less strongly developed than in the male. I place this species provisionally in *Dicellonotus*, but it differs from the types in possessing short tegmina.

## Genus PANESTHIA, Serv.

*Panesthia quinquedentata*, sp. n.

Long. corp. ♂ 19–25 millim.; ♀ 25–34 millim.

Apterous, deep black; the labrum and more or less of the under surface and legs in the male varying from rufotestaceous to dark red; the female much less marked with red, and sometimes almost entirely black; pronotum with the front edge slightly raised in the female, leaving the head just visible, but scarcely at all in the male; it is slightly concave only in the largest female, in which specimen alone the usual two tubercles (large and wide apart) are visible in front of the raised part of the pronotum. The division between the lower front and the higher back portions of the pronotum is less slightly marked than usual. The front is depressed in the middle behind the ridge, and more coarsely punctured than on the sides of the thoracic segments, where the punctuation is extremely fine. The punctuation on the abdomen is slight, the punctures only becoming large and numerous towards the extremity and on the terminal plate. Terminal plate with five large teeth, two just behind the black cerci and three terminal. Front femora unarmed.

*Hab.* Nilgiris.

Probably allied to *P. ferruginipes*, Brunn., but in that species the terminal plate of the abdomen is described as 'multi-crenulata.' There are also a number of immature specimens, perhaps belonging to *P. quinquedentata*, judging by the structure of the abdomen, but they show no trace of the peculiar structure of the thorax. They are black, with more or less of the borders of the thoracic segments, the legs and under surface ferruginous. It is curious that most of these immature specimens are males, whereas the contrary is the case in the adult specimens.

*Panesthia javanica*, Serv.

The best series of this species at present in the Museum is from a doubtful locality (probably Burma), including four specimens of the male, a female, and a number of larvæ. The males exhibit a very interesting series of progressive development, varying in size from 34–47 millim., while the pronotum is scarcely more developed in the smaller specimens than in the female, while in the largest it is provided with very large horns, incurved and pointed at the tips. The larvæ agree with Penang specimens in having the red spots much larger than in typical *P. javanica*, and those of the



metanotum almost united. There are probably several species united under the name of *P. javanica* in various collections; but we require longer series, showing the various forms of the species from each locality, before this can be done satisfactorily.

*Panesthia æthiopsis*, Stoll.

*Blatta æthiopsis*, Stoll, Blatt. pl. 1 D. fig. 3 (1813).

*Hab.* Philippines.

This is a much larger and darker insect than the common *P. javanica*, Serv., with which it is usually considered to be synonymous.

*Panesthia ruficeps*, sp. n.

Size, shape, and general appearance of *P. javanica*, Serv.; front femora likewise trispinose, and the punctuation very similar. Differs as follows:—Dark brownish red, instead of black mixed with red; the centre of the pronotum, the terminal plate of the abdomen above and below, and the labium shading into blackish. Head otherwise light red (black in typical *P. javanica*), smooth and shining, clypeus below transversely striated. Tegmina rather lighter chestnut than in *P. javanica*. Pronotum in front with a distinct central carina in the male, but scarcely more excavated in front in the male than in the female.

Larva with more or less distinct oblique red marks on the meso- and metanotum, often curving round behind into a continuous band, and frequently with additional red marks on the sides.

*Hab.* Christmas Island.

The difference in the larvæ is quite sufficient to establish the claims of this insect to be regarded as a distinct species.

*Panesthia Tepperi*, n. n.

||*Panesthia transversa*, Tepp. (nec Burm.), Tr. R. Soc. S. Austral. xvii. p. 125 (1893).

*Hab.* Port Darwin, Northern Territory of South Australia.

Differs, according to the description, from the other yellow-banded species of *Panesthia* in the band on the tegmina being interrupted.

*Panesthia morosa*, sp. n.

Long. corp. 26–28 millim.; exp. tegm. 48–53 millim.

Head and body black, a dot within each antenna, the

lower mouth-parts, the apical third of the antennæ, a spot on each side of the base of the abdomen, and the pulvilli yellowish or tawny. Front femora unarmed. Pronotum slightly concave on the front edge in the male. The front part is separated as usual by a curved depression from the raised hinder part, which is slightly bituberculate in the male. Abdomen covered with large depressed punctures; terminal plate with the hinder edge very slightly waved in the male, and scarcely at all in the female. Tegmina shining purplish brown, with the anal nervure narrowly yellow. Beyond the costal convexity is a paler space, crossed by oblique dark nervures. Wings smoky hyaline, with the costa and apex purplish brown.

*Hab.* Animalli Hills, S. India.

Allied to *P. plagiata*, Walk. (*inermis*, Brunn.), from Ceylon; but that species has a yellow band on the tegmina. The too brief description of *P. antennata*, Brunn., from Burma, might apply to this insect; but the former has spines on the front femora.

*Panesthia hilaris*, sp. n.

Long. corp. 32 millim.; exp. tegm. 62 millim.

*Female*.—Head smooth, black, face with a few fine punctures, eyes, ocelli, and antennal pits yellow, lower mouth-parts reddish, antennæ black, with a ring formed of two yellow joints at three fourths of their length; thorax above dark chestnut-brown, shading into blackish in front, except at the sides; metathorax light reddish; abdomen mostly black; under surface and legs mostly reddish chestnut. Prothorax with a rounded concavity on the frontal margin, leaving the vertex visible; front of prothorax sparingly punctured, with three shallow carinæ, the middle one very fine, converging behind, where a shallow lyrate depression, sparingly punctured, separates the front of the pronotum from the slightly raised and more thickly punctured hinder part. Front femora with a terminal spine beneath, and a preceding one on the left femur; pulvilli yellow. Abdomen with large depressed punctures; the terminal plate with larger and fewer punctures, the margin somewhat flattened, the extremity rounded. Tegmina yellowish hyaline, the basal third and a spot on the middle of the costa of the right tegmen, corresponding to a stripe on the left tegmen not reaching the inner margin; wings yellowish hyaline, darker towards the base, and lurid towards the costa.

*Hab.* Sandakan (*Creagh*).

Allied to *P. necrophoroides*, Walk., *mandarinea*, Sauss., &c., but differs from them in the colour of the antennæ and in the rounded terminal plate.

*Panesthia perfecta*, n. n.

*Panesthia australis*, Sauss. (nec Brunn.), Rev. Suisse Zool. iii. p. 323. n. 30 (1895).

*Hab.* New South Wales.

Differs from *P. australis* in the fully developed wings.

Genus MYLACRINA, nov.

*Female*.—Front of pronotum bordered by a raised rounded ridge, deeply and triangularly excavated in the middle; the surface rugose, the sides thickly punctured; two broad converging ridges running towards the raised hinder portion, which is furnished with a large tubercle on each side in front, and two in the middle; halfway between the front and hinder tubercles is a shallow depression. Upper surface of body sparingly punctured, except on the sides; but the sixth segment of the abdomen with large and numerous punctures; the seventh coarsely, and the terminal plate more finely, rugose. Fifth and sixth segments of the abdomen with distinct, though small, projecting lateral angles, that on the seventh larger, and slightly oblique, seventh segment twice slightly indented; terminal plate with numerous short blunt teeth. Tegmina lateral, subtriangular, rounded at the extremity, not much longer than the pronotum, and with large and numerous punctures. Wings not visible. Front femora with a strong curved spine at the extremity of the inner carina. Cerci short, rounded, set with fine reddish hair.

Differs from typical *Dicellonotus*, *Macropanesthia*, &c. in the presence of short tegmina, in the lateral projections on segments 5 and 6, &c.

*Mylacrina Wrayi*, sp. n.

Long. corp. 38 millim.; lat. 17 millim.

*Female*.—Black; antennæ, knees, and tarsi dark ferruginous, scape of antennæ, mouth-parts, and pulvilli lighter reddish, upper part of head black, smooth and shining, with a few very fine punctures.

*Hab.* Perak (*Wray*).

## Genus HETEROPLANA, nov.

Differs from *Macropanesthia*, Saussure, in the presence of rudimentary tegmina and wings. Body broad; pronotum excavated in front, the excavation thickly and finely punctured, the front of the raised crest behind it with two tubercles near the middle. Body mostly smooth, but the abdomen with the sixth and seventh segments thickly covered with large depressed punctures, both above and below; seventh segment with a large securiform tooth, slightly pointing backwards, on each side at the extremity; terminal plate very closely and finely punctured above, and with large depressed punctures below; at the base on each side are two large teeth, the first raised; beyond these the extremity is strongly and regularly dentated. Front femora unarmed.

*Heteroplana Thomsoni*.

Long. corp. ♂ 28–35, ♀ 25–26 millim.; lat. corp. ♂ 17–18, ♀ 15 millim.; long. tegm. 8 millim., cum alis 11 millim.

Dark reddish brown, the antennæ, lower mouth-parts, and legs much redder; eyes honey-yellow; tegmina lateral, extending just beyond the extremity of the metanotum, uniformly broad for three fourths of their length, and then contracting rather suddenly; wings narrow, extending to beyond the first abdominal segment, and then curved up suddenly to an obtuse point, as are also the tegmina; the first tooth in the terminal segment of the abdomen upcurved, and clothed with short reddish hair.

Described from seven specimens (three males, four females) brought by Mr. Basil Thomson from the island of Aignan in the Louisiade Archipelago.

The insect has considerable resemblance to the figure of *Macropanesthia Mülleri*, Sauss., but the rudimentary wings of the male, and the difference in the shape of the appendages and crenulation of the last two abdominal segments, sufficiently indicate it as distinct.

## FORFICULIDÆ.

Additional note on *Labidura bidens*, Oliv.

(anteà, p. 66. n. 16).

All the observations under this name apply to *L. erythrocephala*, Fabr. The true *L. bidens* is described as having a black head, and is not yet represented in the Museum.